

Notice No.1

Rules and Regulations for the Classification of Ships using Gases or other Low-flashpoint Fuels, July 2018

The status of this Rule set is amended as shown and is now to be read in conjunction with this and prior Notices.
Any corrigenda included in the Notice are effective immediately.

Please note that corrigenda amends to paragraphs, Tables and Figures are not shown in their entirety.

Issue date: July 2018

Amendments to	Effective date	IACs/IMO implementation (if applicable)
Part A-1, Section 6	Corrigenda	N/A
Part B-1, Section 16	Corrigendum	N/A



Lloyd's
Register

Working together
for a safer world

Part A-1

Specific Requirements for Ships Using Natural Gas as Fuel

6 Fuel Containment System

6.4 Regulations for liquefied gas fuel containment

6.4.16 Limit state design for novel concepts

6.4.16.2.1 6.4.16.2 The limit state design is a systematic approach where each structural element is evaluated with respect to possible failure modes related to the design conditions identified in 6.4.1.6. A limit state can be defined as a condition beyond which the structure, or part of a structure, no longer satisfies the regulations.

6.4.16.2.2 6.4.16.3 For each failure mode, one or more limit states may be relevant. By consideration of all relevant limit states, the limit load for the structural element is found as the minimum limit load resulting from all the relevant limit states. The limit states are divided into the three following categories:

- .1 Ultimate limit states (ULS), which correspond to the maximum load-carrying capacity or, in some cases, to the maximum applicable strain or deformation; under intact (undamaged) conditions.
- .2 Fatigue limit states (FLS), which correspond to degradation due to the effect of time varying (cyclic) loading.
- .3 Accident limit states (ALS), which concern the ability of the structure to resist accidental situations.

6.4.16.3 6.4.16.4 The procedure and relevant design parameters of the limit state design shall comply with the Standards for the Use of limit state methodologies in the design of fuel containment systems of novel configuration (LSD Standard), as set out in the annex to part A-1.

Part B-1

16 Manufacture, Workmanship and Testing

16.7 Testing regulations

16.7.2 Expansion bellows

(Part only shown)

The following type tests shall be performed on each type of expansion bellows intended for use on fuel piping outside the fuel tank as found acceptable in 7.3.6.4.3.1.3 and .3 and where required by the Administration, on those installed within the fuel tanks:

© Lloyd's Register Group Limited 2018
Published by Lloyd's Register Group Limited
Registered office (Reg. no. 08126909)
71 Fenchurch Street, London, EC3M 4BS
United Kingdom

Lloyd's Register and variants of it are trading names of Lloyd's Register Group Limited, its subsidiaries and affiliates. For further details please see
<http://www lr org/entities>

Lloyd's Register Group Limited, its subsidiaries and affiliates and their respective officers, employees or agents are, individually and collectively, referred to in this clause as 'Lloyd's Register'. Lloyd's Register assumes no responsibility and shall not be liable to any person for any loss, damage or expense caused by reliance on the information or advice in this document or howsoever provided, unless that person has signed a contract with the relevant Lloyd's Register entity for the provision of this information or advice and in that case any responsibility or liability is exclusively on the terms and conditions set out in that contract.